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IO  
**INTERACTIVE OFFICE**

**User's Manual**

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Space Transportation and Exploration Office  
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Marshall Space Flight Center, AL

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Approved by:

Jay H. Laue  
J. H. Laue

Director, Aerospace Systems

Approved by:

Charles W. Mead

C.W. Mead

SRS/STG General Manager

**SRS**  
**TECHNOLOGIES**

**SYSTEMS TECHNOLOGY DIVISION**

990 EXPLORER BLVD. N.W.  
CUMMINGS RESEARCH PARK WEST  
HUNTSVILLE, ALABAMA 35806

(205) 895-7000

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This manual was written by Edward E. Montgomery, Benjamin Lowers, and Terri L. Nabors.

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## Foreword

This document and the accompanying software was prepared by SRS Technologies under Contract NAS8-36643 for the Space Transportation and Exploration Office of NASA's George C. Marshall Space Flight Center. The work was performed under the supervision of the COTR, Mr. Bruce M. Wiegmann/PT.

This manual describes the operation of the Interactive Office software system developed by SRS during the period from April 1, 1989 to March 31, 1990. The SRS contract manager is Jay H. Laue of SRS Technologies' Systems Technology Group, Aerospace Systems Directorate in Huntsville, Alabama. The SRS project leader is Terri H. Nabors. Other contributors at SRS included:

Benjamin P. Lowers  
Edward E. Montgomery  
Timothy N. Deaton  
John C. Carroll  
John D. McDonald  
Deborah A. Kromis

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## CHAPTER I. ABOUT INTERACTIVE OFFICE

Interactive Office (IO) is an executive office tool for organization and planning written specifically for the Macintosh. Users of IO are expected to be familiar with the operations and commands of the MacIntosh computer. The users of IO can, with the click of the mouse, be reminded of milestone deadlines and activities, organize meetings without conflicts, easily access frequently used applications and files, plan procurement activities and milestones and generally use the IO application as a home base for all Macintosh utility. Interactive Office is a paperless management tool to automate a related group of individuals into one productive system. The Interactive Office software produced and delivered under this contract, was written by SRS Technologies specifically for NASA/MSFC Office of Space Transportation and Exploration. Although many of its operations support general office functions, some of the features are specific to the needs of the sponsoring organization and would be of limited benefit to other organizations. In addition, there are certain logos and nomenclature used which are localized to NASA. Therefore, the version of IO described here and delivered to the government is not suitable to be used as is for a generic package to support any group of individuals.

On the other hand, IO was developed using HyperCard and Fourth Dimension. Since these are interpreter based programs all source codes are resident and accessible in the delivered package - with the exception of the vendor supplied QuickMail electronic package.

SRS intends to develop and market commercially a product very similar to IO, but generic in nature. SRS also intends to pursue similar developments with features specific to the needs of other organizations in government, industry, and academia. If you are interested in any IO related products or services, SRS would be glad to hear from you. For more information call or write:

SRS Technologies, Aerospace Systems Directorate  
990 Explorer Blvd. N.W.  
Cummings Research Park West  
Huntsville, AL 35806  
(205) 895 - 7000

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## CHAPTER II.

### INSTALLATION AND START-UP

Although it operates like a multi-user system, IO is actually a single user application. Most data manipulation occurs locally or in user specific files on the server. For the few cases in which data is shared by the users, only one user can actually access the central database at a time. To prevent domination by one user, IO does not continually read these files. Instead, periodic refreshing of data occurs. In rare instances this may result in messages to the user that a file is busy. This requires only a little patience from the user. The lock-out will not last long since a read only takes seconds at most. The structure of the IO system has been developed to avoid multiuser conflicts. Any number of approved users can work with the program on any capable Macintosh connected to a network - all at the same time. IO was designed specifically to run on the Apple Macintosh family of personal computers. The unique and powerful user interface features of the Macintosh have been used extensively. As a result IO cannot be executed on other brand personal computers or larger main-frame machines.

#### 1.0 Hardware Requirements

The recommended hardware configuration is:

- A Mac Plus, SE, SE/30, IIX, IICX, or IICI computer with at least 1 megabyte of RAM.
- Two (2) 800K or larger floppy disk drives or one (1) floppy drive and a hard disk mass storage unit (fixed or removable).
- An Apple Local Talk network (or compatible such as PhoneNet or Nuvotech).
- A file server volume (size dependant on number of users and their activity levels. In general, less than 2 megabytes will be needed).
- A LaserWriter IINT or LaserWriter IINTX printer.

The IO application was developed primarily on a Mac SE/30 with 2 Mbytes of RAM and a 20 Mbyte internal hard disk drive running System software release 6.0.3.

File servers used have been a Mac Plus with an 80 megabyte external CMS hard drive, a Mac IICx with a 40 megabyte internal drive, and a DEC MicroVax. The application can be used on any screen size including the Mac Portable. The SE/30 development computer was connected through an Apple LocalTalk LAN including a LaserWriter II NTX and a server running AppleShare versions 1.0 and 2.0. Also some development occurred while connected through an Apple LocalTalk LAN bridged to EtherNet using a FastPath 4 bridge ultimately connecting to a MicroVAX file server. An extended keyboard is not necessary, but may be used with no reduction of functionality. It is possible to execute IO using an external 800K or 1.4 Mb drive instead of the hard disk, but execution speed is slower; and for a large number of activity records it may become difficult to avoid tedious disk swapping. *Note: floppy-based system users may have to construct a "Minimal System" on their startup disk to have space for both the required system resources, HyperCard, and the 4D Runtime application. See your Macintosh System Manager or your Apple Dealer for instructions on this process.*

## **2.0 Software Requirements**

The recommended software configuration is:

- System, Finder, and LaserWriter Versions 6.0.2 or later.
- HyperCard Version 1.2.2 or later.
- 4D Runtime Version 1.06 (department manager only)
- AppleShare 2.0 or later.

The recommended software organization on the local Macintosh disk is:

- HyperCard and the Homestack (Calendar v1.2) located together in "Calendar Folder".
- 4D Runtime and Procurement Planner located together in "ProcPlanner Folder".



The required software organization on the file server is:

- Rename file server to "IO Server Disk"
- Create folder name "IO" on "IO Server Disk"
- "Calendar Folder" and "ProcPlanner Folder" located in the "IO" folder.

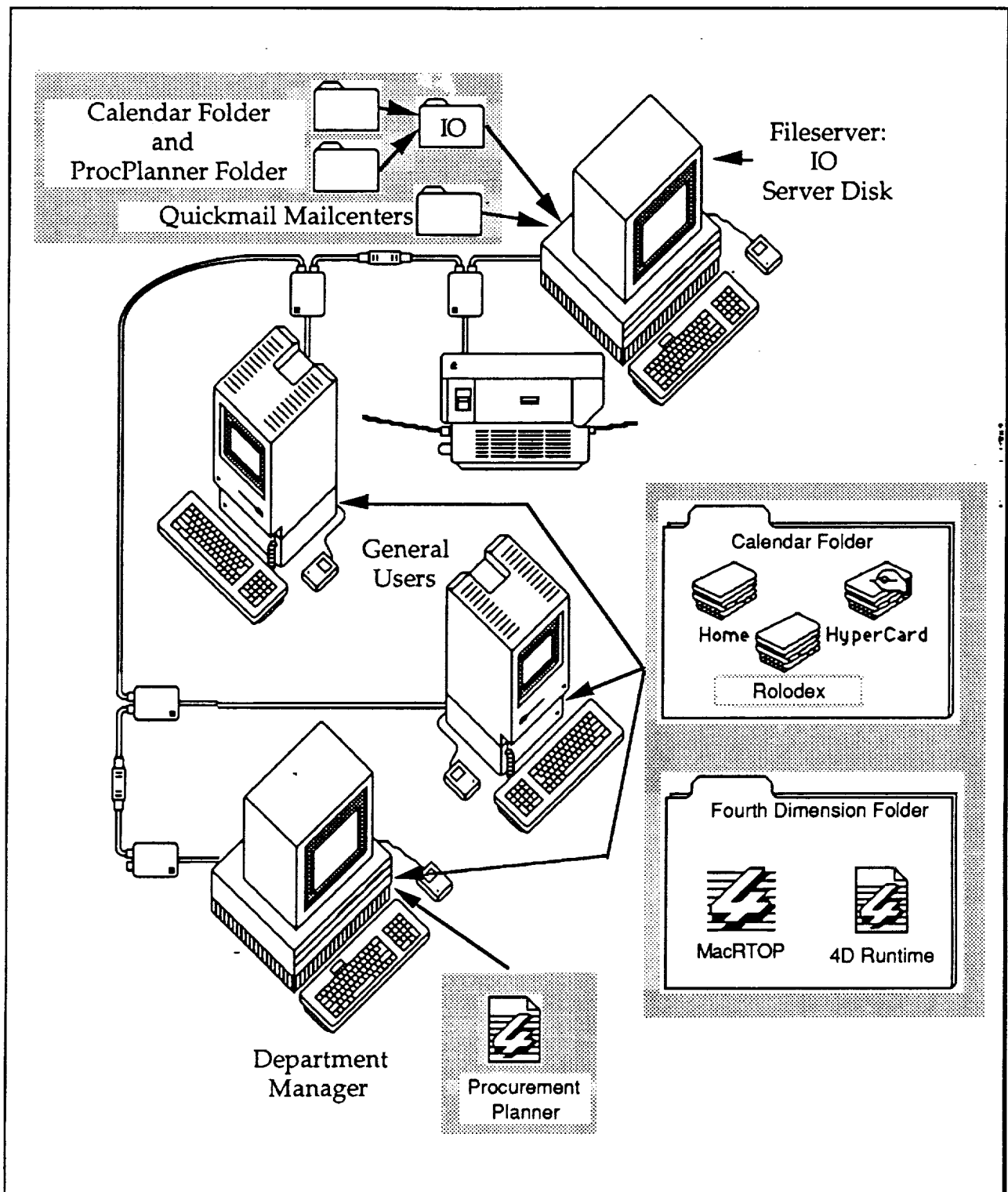
IO utilizes several special fonts and system utilities available for the Macintosh computer. To successfully use the application, use Apple's Macintosh System release 6.0.3 (with System, Finder, LaserWriter, and Laser Prep versions 6.0.3) or more recent versions. All these resources are located in the System Folder of either the hard disk drive on your Macintosh, or on the System Floppy Disk you normally boot with. If you are unsure of which version of System resources you are using, contact your Macintosh System Manager or Apple Dealer. If an upgrade to your system software is required, it is available free-of-charge from any Authorized Apple dealer.

IO was developed using the 4th Dimension Developer software version 1.0.6 and HyperCard version 1.2. Acius, Inc. (the producers of 4D) has recently released version 2.0. The 4D Runtime you use should be version 1.0.6 since version 2.0 will not execute 1.06 developments. Acius has provided a conversion routine and although IO should be convertible to the newer versions, theory often falls short of reality. The compatibility has not been tested and it is recommended that 4D product versions 1.0.6 be used in conjunction with IO to be sure.

IO was tested across networks executing AppleShare and AlisaShare file server software. No problems with transportability were ever experienced. IO should be fully operational with other Apple compatible network products such as TOPS.

It was not possible to test IO in conjunction with any large number of applications, cdevs, or inits. Therefore, some incompatibilities may exist. The only known incompatibility is in conjunction with a program called Adobe Type Manager. This software should be inactive when executing IO since it forces different fonts to be used than those originally programmed. The calendar card of IO was developed over many hours of trial and error to find an arrangement of text and graphics that could fit within the standard Macintosh display window and still provide enough room to display significant amounts of data along with a large

number of buttons and menus. Modifications to fonts in IO could cause some odd-looking displays. —



### 3.0 Installation

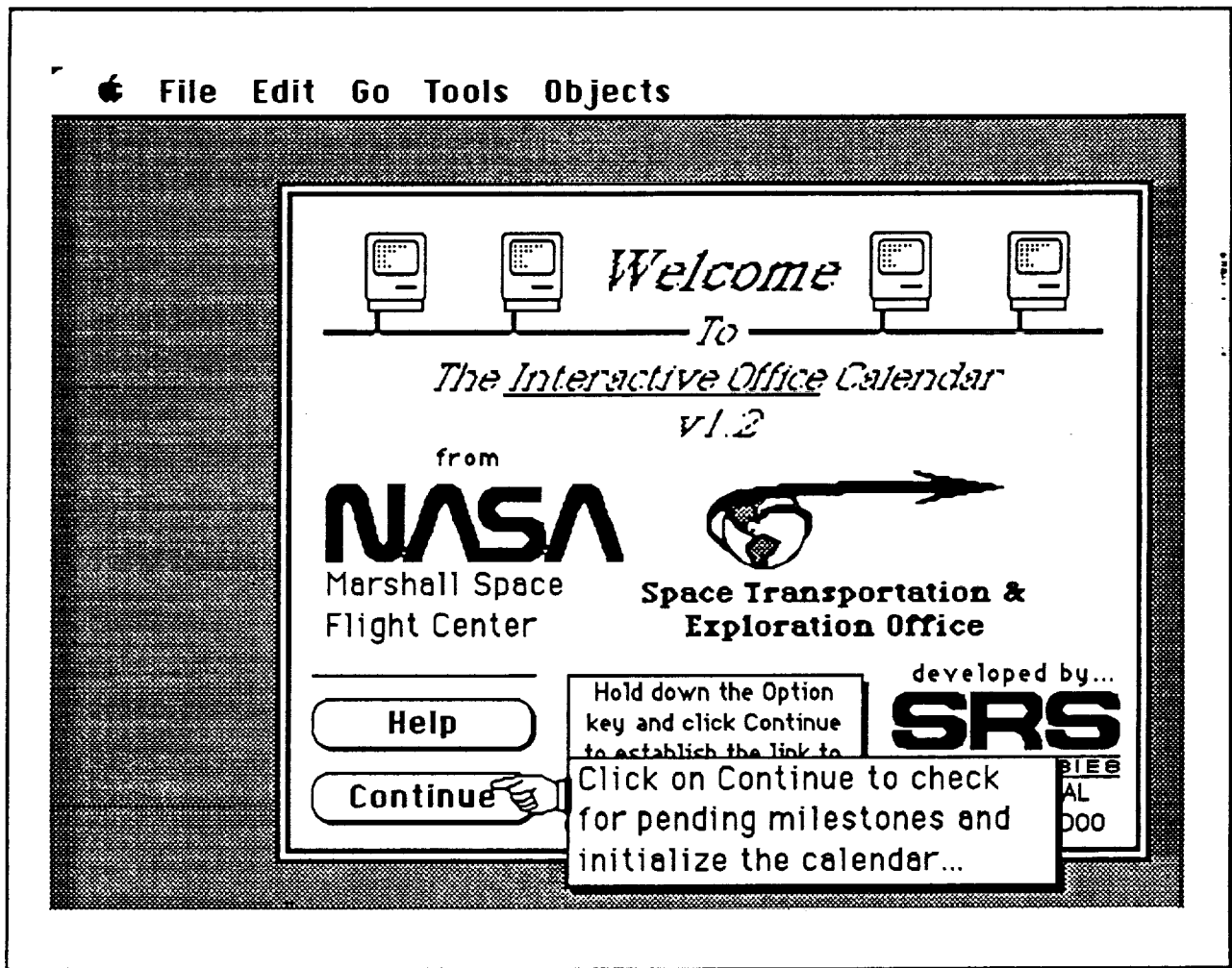
There are two groups of files which comprise IO. The first is the set which is loaded on the user's computer and executes locally. This software interfaces with the second group which is resident on the central file server to which all the users have access through their Chooser desk accessory windows. Installation of software and data of these two groups are described separately below.

On the user's computer, first see if a copy of HyperCard and 4D Runtime already are located on the hard drive (or in an auxiliary floppy drive). If not, obtain them and load them according to the organization listed above under "recommended software organization". HyperCard comes bundled with all recent Apple computers and is also available through your local Apple dealer. 4D Runtime is available from Acius, Inc. and most software vendors. Be sure to specify version 1.06 of 4D. If IO has not already been installed by SRS, copy the Home stack (Calendar v1.2) from another user's system. If the new user is a department manager, then copy as well the Procurement Planner from another manager's system. Next, from the desktop, click on HyperCard once to select it. Find the "Special" menu from the menubar at the top of the screen and pull it down, selecting "Set Start-Up". Answer the dialog box displayed to confirm HyperCard as the start-up application by clicking the "OK" button. This will automatically bring up IO whenever the user machine is turned on. This will be important if the user wants to receive the automatic reminders of upcoming important milestones. If the user's computer is to be disconnected from the IO server and used stand-alone somewhere else, or just if the user gets tired of IO, resetting the start-up selection is a good way to turn IO off. It will still be available to the user at any time by finding the Home stack and clicking twice on it. Alternately, the user may turn off IO by letting it boot to the Home card screen automatically, then selecting "Quit HyperCard" from the menus at the top.

A file server volume was setup for PT01 by SRS and named "IO Server Disk" during this project. A completely separate file server may be established in another zone and IO recreated on it for another group. To set up another installation first rename a volume on the new server within the new zone to "IO Server Disk". Created a folder with the name "IO" on the new volume. Copy from the original IO Server Disk the two folders within IO named "Calendar Folder" and "ProcPlanner Folder". Paste them within the IO folder on the new volume. Edit the groups through the normal IO calendar functions to reflect the structure of the new organization being served.

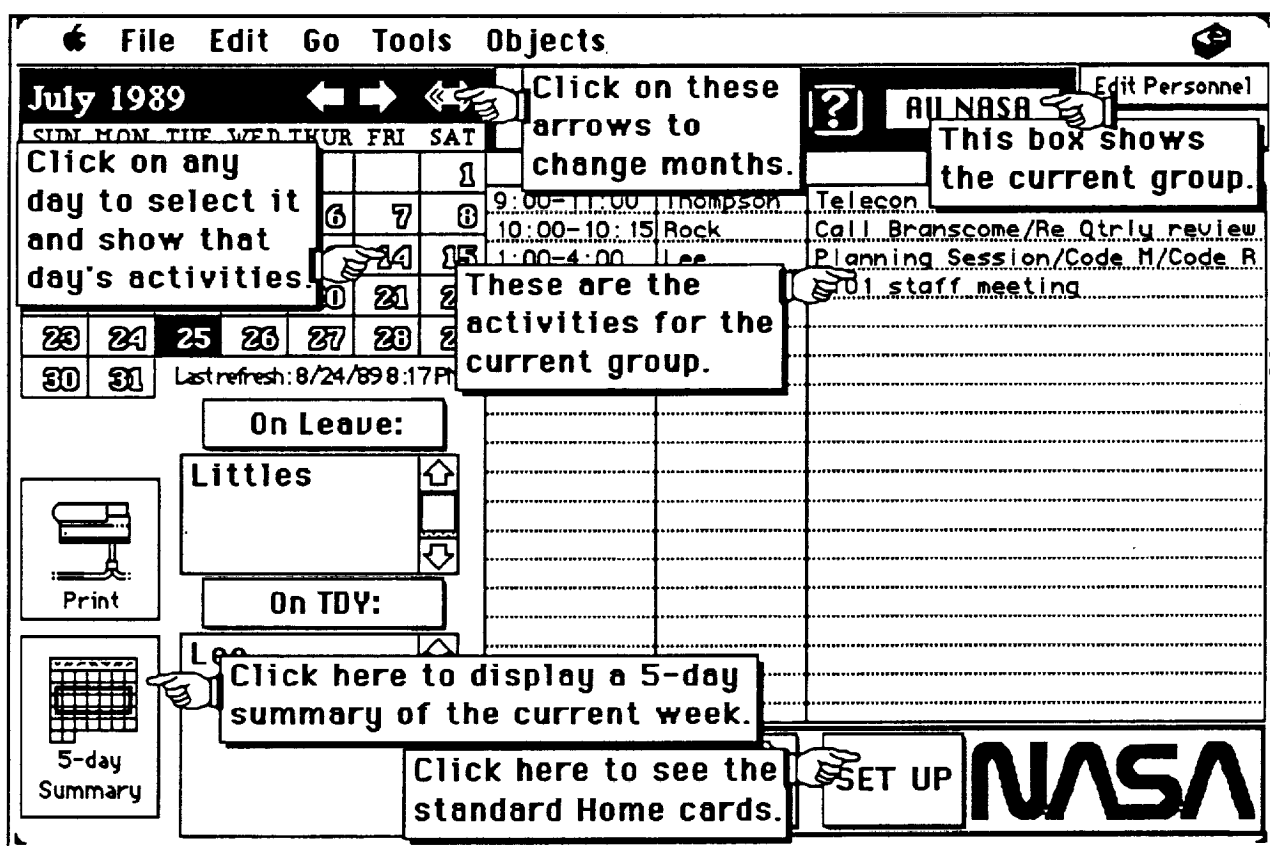
#### 4.0 Start-Up

On start-up, the screen below is shown to the user. If the user wishes to bypass IO, the File menu at the top of the page has a "Quit HyperCard" selection which will return the user to the desktop. All the basic HyperCard menus and commands are active and usable. Caution should be exercised in editing IO HyperCard scripts or cards. The Help button will provide access to a brief listing of topics. These topics are discussed in section 7.0. The Continue button will launch the user into the central waystation of IO, the calendar.



## CHAPTER III. IO OPERATIONS

The calendar, shown below, allows easy maneuverability through simple mouse clicks. The following instructions will lead the user through each feature of the IO Calendar.



### 1.0 Date Selection

The calendar will always default to the current date when restarted. Another date is selected by either clicking on the desired date, if the current month is correct, or using the scroll arrows displayed to the right of the month and year display. The open arrows will scroll forward or backward by clicking on the arrow in the direction desired. The connected arrows next to the open arrows allow the user to quickly jump to a desired month and year without having to scroll through each month preceding it. To skip to any month and year place an "X" in the desired month and highlight and change the year with the cursor hand, then select OK or cancel.

## 2.0 Entering Activities

A. Select the appropriate date the activity is to be performed on with the method described above on day selection.

July 1989							Jump To Today	Refresh Now!	MSFC	Edit P
SUN	MON	TUE	WED	THUR	FRI	SAT				
						1	Time	Name	Activity	Edit
2	3	4	5	6	7	8	1:00-4:00	Lee	Planning Session/Code M	
9	10	11	12	13	14	15	4:30-5:00	Austin	PT01 staff meeting	
16	17	18	19	20	21	22				
23	24	25	26	27	28	29				
30	31									

B. Click once on the word Activity with the cursor hand.

C. Specify if the activity is going to be a periodic one. If the activity is going to be periodic answer the sequence of questions about the period and duration.

D. Choose the time in which the activity will start (8:00 AM will be highlighted as the default - use the scroll bar to scroll up or down if necessary). Double click on the time or highlight it and click OK.

E. Choose the time in which the activity will end (5:00 PM will be highlighted as the default - use the scroll bar to scroll up or down if necessary). Double click on the time or highlight it and click OK.

F. Choose the person who is to be present at this activity.

G. Choose the group in which this message is associated - it will be displayed as an activity for this group. A question asking if this activity is to be listed in the department summary is displayed. If you would like the activity to be displayed in the top level activity summary click "Yes".

File Edit Go Tools Objects

July 1989    ← → ⇄    Jump To Today    Refresh Now!    ?    All NASA    Edit Pe  
 Edit C

SUN	MON	TUE	WED	THUR	FRI	SAT	Time	Name	Activity
						1	9:00-11:00	Thompson	Telecon with Cohen JSC
2	3	4	5	6	7	8	10:00-10:15	Rock	Call Branscome/Re Qtrly
9	10	11	12	13	14	15	1:00-4:00	Lee	Planning Session/Code M/
16	17	18	19	20	21	22	4:30-5:00	Austin	PT01 staff meeting
23	24	25	26	27	28	29			
30	31	Last refresh: 8/24/89 8:17 PM							

On Leave:    Littles    ↑

To change the group displayed, click on the current group to reveal a pop-up menu...

File Edit Go Tools Objects

July 1989    ← → ⇄    Jump To Today    Refresh Now!    ?    All NASA    Edit Pe  
 Edit C

SUN	MON	TUE	WED	THUR	FRI	SAT	Time	Name	Activity
						1	9:00-11:00	Thompson	Telecon with Cohen JSC
2	3	4	5	6	7	8	10:00-10:15	Rock	Call Branscome/Re Qtrly
9	10	11	12	13	14	15	1:00-4:00	Lee	Planning Session/Code M/
16	17	18	19	20	21	22	4:30-5:00	Austin	PT01 staff meeting
23	24	25	26	27	28	29			
30	31	Last refresh: 8/24/89 8:17 PM							

On Leave:    ↑

And select a group...

All NASA  
 ✓ All NASA  
 HDQTRs  
 JSC  
 KSC  
 MSFC  
 Stennis

File Edit Go Tools Objects

July 1989    ← → ⇄    Jump To Today    Refresh Now!    ?    All NASA    Edit Pe  
 Edit C

SUN	MON	TUE	WED	THUR	FRI	SAT	Time	Name	Activity
						1	9:00-11:00	Thompson	Telecon with Cohen JSC
2	3	4	5	6	7	8	10:00-10:15	Rock	Call Branscome/Re Qtrly
9	10	11	12	13	14	15	1:00-4:00	Lee	Planning Session/Code M/
16	17	18	19	20	21	22	4:30-5:00	Austin	PT01 staff meeting
23	24	25	26	27	28	29			
30	31	Last refresh: 8/24/89 8:17 PM							

All NASA  
 ✓ All NASA  
 HDQTRs  
 JSC  
 KSC  
 MSFC  
 Stennis

H. Give a brief explanation of the nature of the activity.

If you have additional information pertaining to this activity, click Yes when asked if you would like a Flip-Side.

I. Click the cursor down in the Flip-Side region and type additional information as needed. Click Save.

### 3.0 Viewing Activities

A. Select the appropriate date the activity is to be performed on through the method described in 1.0 Day Selection.

B. Click the cursor hand on the activity description in which you want to view additional information.

The screenshot shows a software window with a menu bar (File, Edit, Go, Tools, Objects) and a toolbar. The main area is divided into two sections. The top section is a calendar for July 1989, with days of the week (SUN to SAT) and dates (1 to 31). The bottom section is a table of activities with columns for Time, Name, and Activity. A tooltip box is overlaid on the table, stating: "Click on an activity to see additional information for that activity..."

July 1989							Jump To Today	Refresh Now!	MSFC	Edit P...
SUN	MON	TUE	WED	THUR	FRI	SAT				
						1	Time	Name	Activity	Edit r
2	3	4	5	6	7	8	8:00-8:45	Austin	Check in w/Davies/Code M	
9	10	11	12	13	14	15	9:00-9:30	Austin	Check on Code MD QuickMc	
16	17	18	19	20	21	22	11:00-1:00	Lee	Luncheon at Smithsonian	
23	24	25	26	27	28	29	1:30-3:45	Austin	Welcome to join ADI brie	
30	31	Last refresh: 8/24/89 8:26 PM								
On Leave:										
Titles										

Delete - Click the Delete button to completely delete the current activity.

Edit - Follow the process of entering an activity in section 2.0 starting at D and answer all questions.

OK - Return to calendar.



File Edit Go Tools Objects

July 1989    Jump To Today    Refresh Now!    MSFC    Edit Personnel    Edit Groups

SUN	MON	TUE	WED	THUR	FRI	SAT
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

in Thompson's office  
w/Herr from Code MD

Flip-Side

Delete

Edit

OK

Print

5-day Summary

Littles

On TDY:

Lee Austin

SET UP NASA

This field scrolls and can contain the equivalent of 16 full pages of text.

Click OK to hide the Flip-Side and return to the activity list, or Delete or Edit the activity...

File Edit Go Tools Objects

July 1989    Change back to the summary display by selecting "All" from the pop-up menu located under the current group box...    MSFC    Edit P    Edit

SUN	MON	TUE	WED	THUR	FRI	SAT
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	Last refresh: 8/24/89 10:10PM				

Activity

9:00-9:30 Austin Check in w/Davies/Code MD

11:00-1:00 Lee Luncheon at Smithsonian

1:30-3:45 Austin Welcome to join ADI brief

On Leave:

#### 4.0 Jump to Today

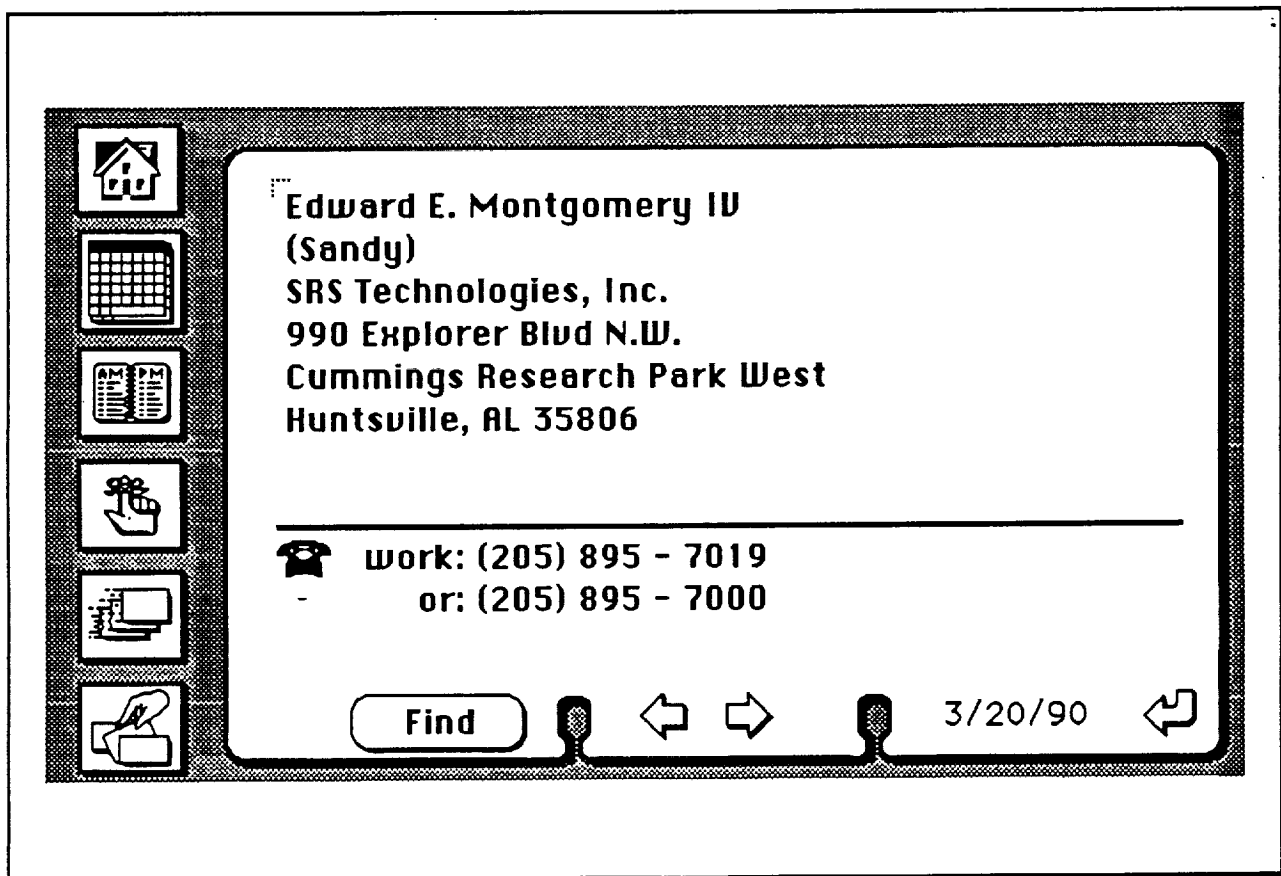
Click on the Jump button to go directly to today's actual month and date from any date currently displayed. This feature combines the two required steps of changing the month (possibly more than one!) and the day of the month into a single click of the mouse. Today's activities and Leave and TDY listings are shown on the screen.

### 5.0 Refresh Now! -

Click on the Refresh button to update your current display with any changes made by the other IO users. This feature works in conjunction with the "Last refresh" time and date stamp to provide the maximum level of data integrity. The "Last refresh" time and date stamp indicates the last time that the IO Calendar received an update from the file server. This feature should be used depending on how often other network users modify the IO Calendar data. If your machine sits idle while others add, delete and edit activities on their calendar, your machine will not show these changes to the calendar until the screen is refreshed.

### 6.0 Rolodex

By clicking on the Rolodex card, the user can access the Rolodex function. The software providing this function was supplied by Apple computer as an example application along with HyperCard.



## 7.0 Help

Clicking on the question mark area anywhere in IO or on the "HELP" button on the start-up screen provides help in various uses and features of the calendar. The screen shown below is immediately displayed. Click on the box next to the desired information or click on the return arrow to get back to the calendar. The topical information available to the user is provided in Chapter V Quick Reference.

For Help with:

- ☐ Apple Macintosh® in general
- ☐ HyperCard in general
- ☐ Interactive Office Calendar Features:
  - ☐ Locating the "IO" files on the file server
  - ☐ Milestone Reminder Feature
  - ☐ Selecting any day on the calendar/month
  - ☐ Selecting another month
  - ☐ Activities Listing with Flip Side
  - ☐ On Leave Listing
  - ☐ On TDY Listing



Return

## 8.0 PT01 - Group Viewing

By clicking and holding down the mouse button on PT01 the user can view the different groups and the messages pertaining to that group.

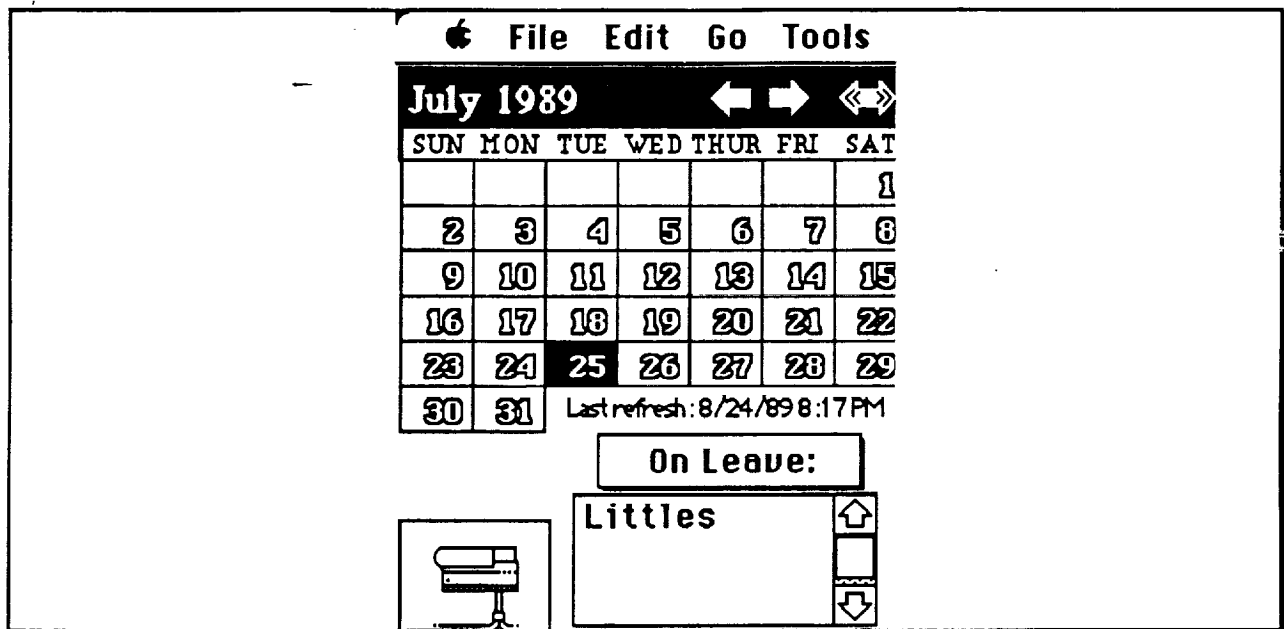
## 9.0 Edit Personnel

Click the cursor hand on the "Edit Personnel" button and a screen will be displayed that lists all personnel. This screen provides the capability to add new names to the list, or edit or delete names currently on the list. To add a name, just type it in the line below the list and click on "Add." To edit or delete a name, first select the person's name from the list and click on "Edit" or "Delete." If editing a name, make changes to the name in the text-editing line below the list, and click

"Accept." Clicking "Cancel" will return to the Calendar, and will NOT save any changes made to the list. You must click "OK" to save any changes made to the personnel list. Remember: adding a name to the personnel list means that the person needs to be added to a group or groups. Go to the personnel grouping card (by clicking on the single right arrow) and add the new person to the required group(s), as instructed in the following section "Edit Groups".

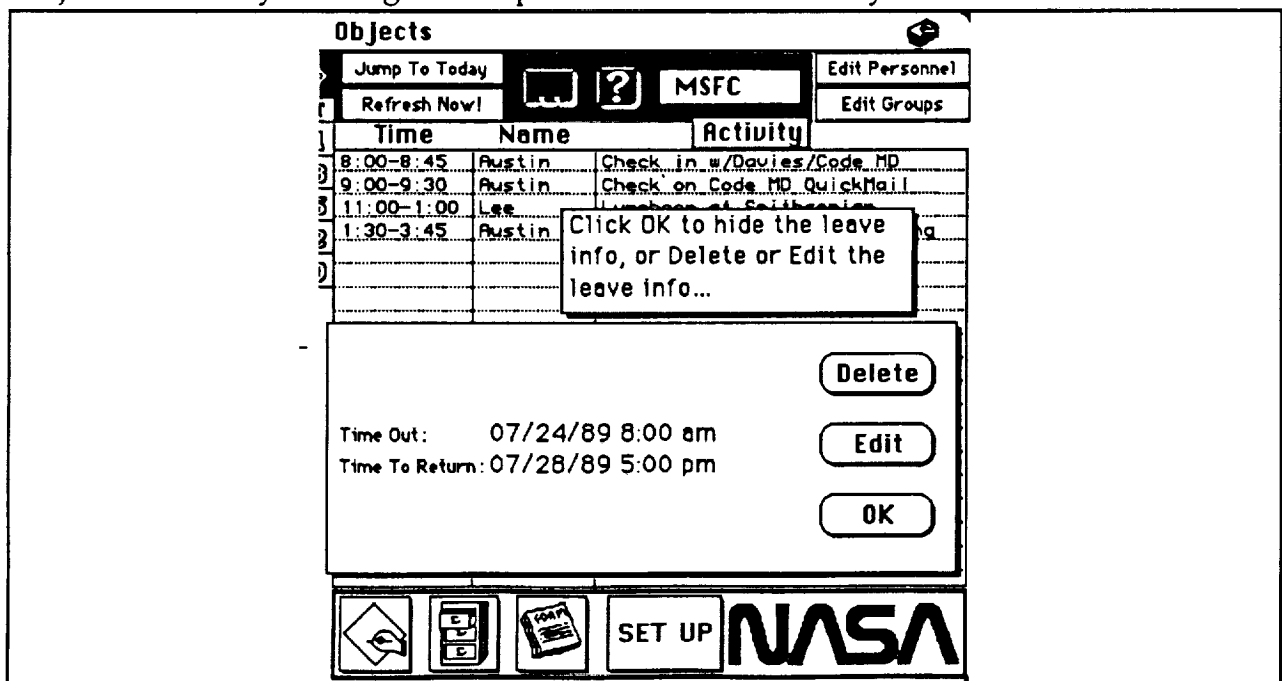
### **10.0 Edit Groups**

Click the cursor hand on the "Edit Groups" button and a screen will be displayed that lists all groups. This screen provides the capability to add new group names, or edit or delete names currently on the group lists. To add a group, just type the group name in the line below the list and click on "Add." To edit or delete a group name, first select the group's name from the list and click on "Edit" or "Delete." If editing a group name, make changes to the name in the text-editing line below the list, and click "Accept." Clicking "Cancel" will return to the Calendar, and will NOT save any changes made to the group list. Clicking "OK" will save all changes made to the group list. Remember: a new addition to the group list needs personnel added to it. Go to the personnel grouping card (by clicking on the single left arrow) and add personnel to the new group(s). This screen shows a list of ALL personnel on the left, and a selected group and its members, on the right. This operates similar to the way fonts and desk accessories are added using Apple's Font/DA Mover, with which you may be familiar. First, click and hold down the cursor hand on the button in the upper right portion of the screen, (i.e. the one with the current group's name in it). Select a group from the pop-up list that will appear. This will cause the list on the right to display the names of the personnel in the group selected. Now, to add a person to the group list, select the person's name on the left and click on the "Copy>" button. To remove a name from the group, select the person's name on the right and click on the "Remove" button. Clicking "Cancel" will return to the Calendar, and will not save any changes made to the groups' personnel. Clicking "OK" will save all changes.



### 11.0 On Leave

Clicking in the On Leave area gives a sequence of selections to be answered concerning the absents times and dates of the individual on leave. The user must input the name of the person going on leave, the date and time in which the person will leave and the date and time the person will return. During any of these choices the user can cancel and be returned to the calendar. The entry can be edited, deleted or just viewed by clicking on the persons name in which you are interested.



## 12.0 On TDY

Clicking on the On TDY area gives choices similar to the On Leave choices but more detailed information so the person can be contacted if necessary. First the individual or group(hold down shift and select all individuals included) on TDY is selected. The destination, lodging place, phone number at the hotel, point of contact, and point of contact's phone number is entered. Then the date and time going out on TDY and the date and time returning is entered. All individuals on TDY on the day selected will be listed in this area and their trip information can be obtained by clicking on the individuals name concerned. It can also be deleted or edited through clicking on the individuals name and following through the questions and answers process.

The screenshot shows the 'On TDY' interface. On the left, there are icons for 'Print' and '5-day Summary'. The main area has a list of individuals under the heading 'On TDY:'. The first individual listed is 'Lee Austin'. A callout box points to 'Lee Austin' with the text: 'Click on a name "on tdy" to see additional information for that person's trip...'. To the right of the list is a table with columns for time, name, and activity. The bottom right corner features a 'SET UP' button and the NASA logo.

Time	Name	Activity
8:00-8:45	Austin	Check in w/Davies/Code MD
9:00-9:30	Austin	Check on Code MD QuickMail
11:00-1:00	Lee	Lunch at Faithman's
1:30-3:45	Austin	

The screenshot shows the 'On TDY' interface with a calendar and a detailed trip information form. The calendar is for July 1989, with the 26th selected. The 'On TDY:' section lists 'Lee Austin'. A callout box points to the calendar with the text: 'Click OK to hide the TDY info, or Delete or Edit the TDY info...'. The bottom right corner features a 'SET UP' button and the NASA logo.

**On Leave:**

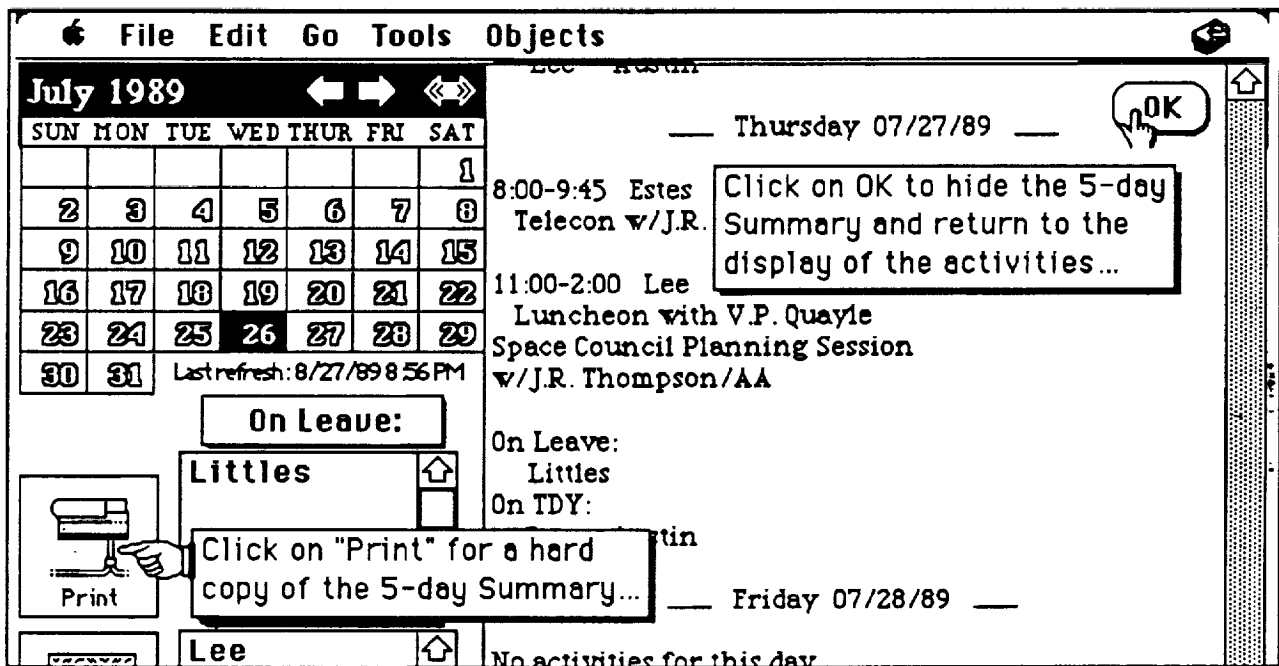
**On TDY:**

Where: Hdqtr's  
 Lodging: Crystal City Marriott  
 Lodging Phone: 404 555 1212  
 POC: Adm. Truly  
 POC Phone: 404 555 1343  
 Time Out: 07/24/89 8:00 am  
 Time To Return: 07/27/89 5:00 pm

Buttons: Delete, Edit, OK

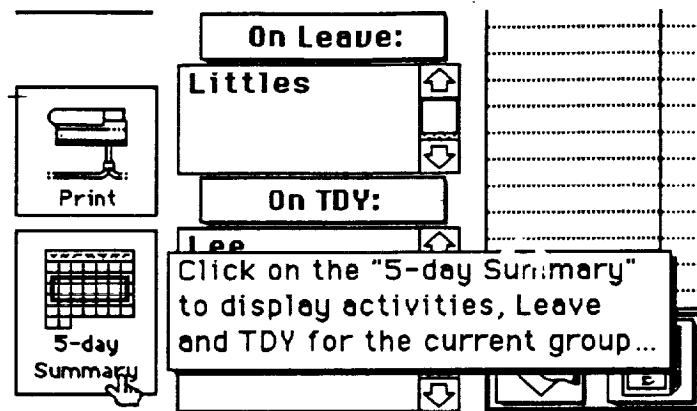
### 13.0 Print

Clicking on the print area will produce a printout of the activities for the calendar date currently shown in the window. Dates, times and descriptions will be included for each activity. The personnel on leave and TDY will also be listed on the printout. If the 5-day summary window is activated the printout will include 5 days worth of activities starting on the Monday of the current day's week.



## 14.0 5-day Summary

Clicking in the 5-day summary area will display a listing of activities for the week of the current calendar day. A question will be asked if the user wishes to include on TDY and On Leave listings in the summary which will be displayed if the user specifies so. The time and individual concerned will be listed for each activity with the activity description (does not include flip-side information). The weeks information-can be scrolled through or printed by clicking in the print area above the 5-day summary area.



File Edit Go Tools Objects

July 1989

SUN MON TUE WED THUR FRI SAT

2 3 4 5 6 7 8

9 10 11 12 13 14 15

16 17 18 19 20 21 22

23 24 25 26 27 28 29

30 31 Last

Jump To Today

Refresh Now!

All NASA

Edit

Ed

Time Name Activity

8:00-9:45 Estes Telecon w/J.R. Thompson

Do you wish to include the On TDY and On Leave listings in the summary?

Cancel Yes No

Print

Objects

Tuesday 07/25/89

OK

9:00-11:00 Thompson  
Telecon with Cohen JSC

10:00-10:15 Rock  
Call Branscome/Re Qtrly

1:00-4:00 Lee  
Planning Session/Code M

Code representatives/attendees to be determined  
In Conf. Rm. 226A / FOB 10

4:30-5:00 Austin  
PT01 staff meeting  
Discuss RTOP status from Code MD

On Leave:  
Littles

On TDY:  
Lee

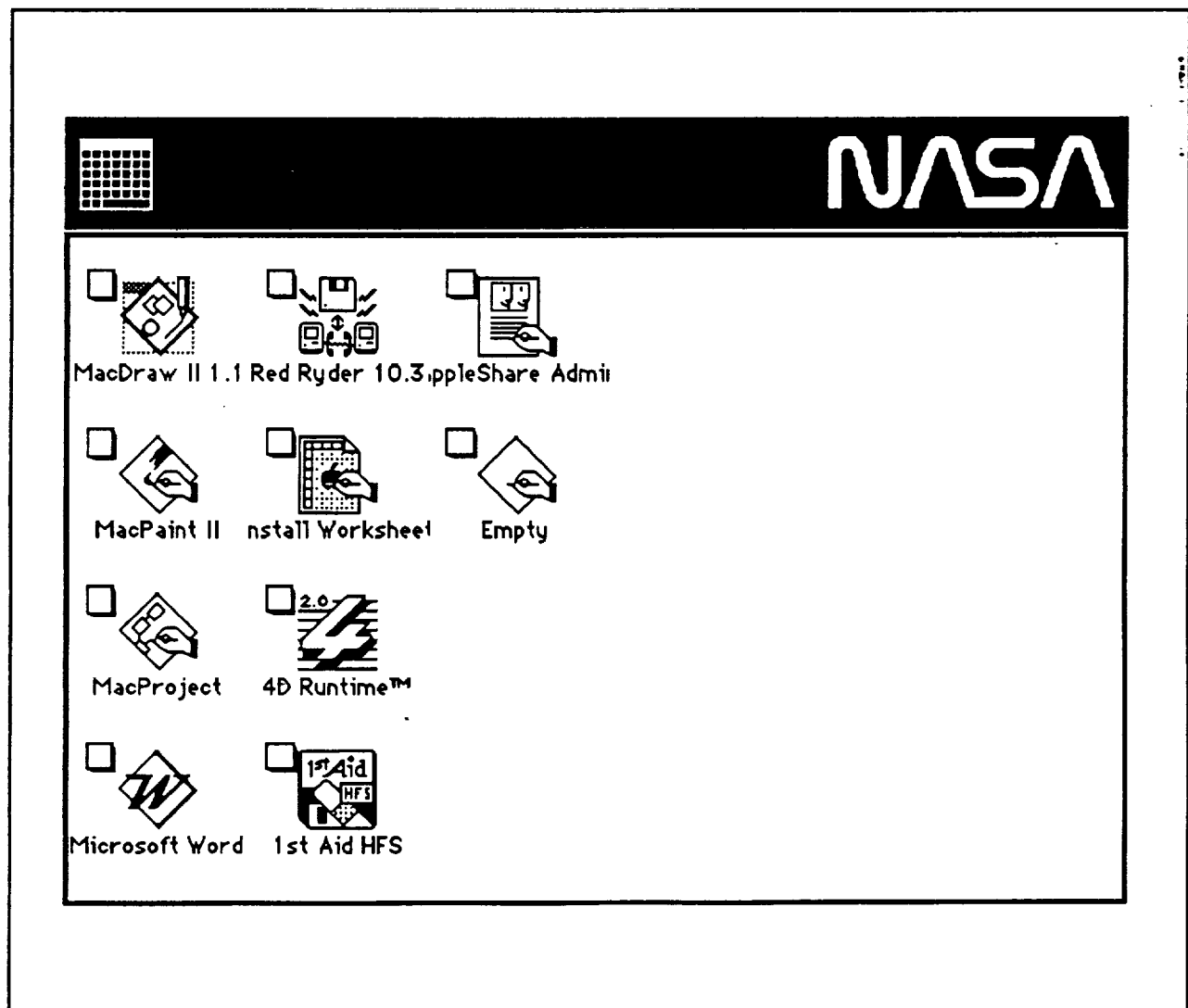
Wednesday 07/26/89

Scroll to any day and time of which you have interest...



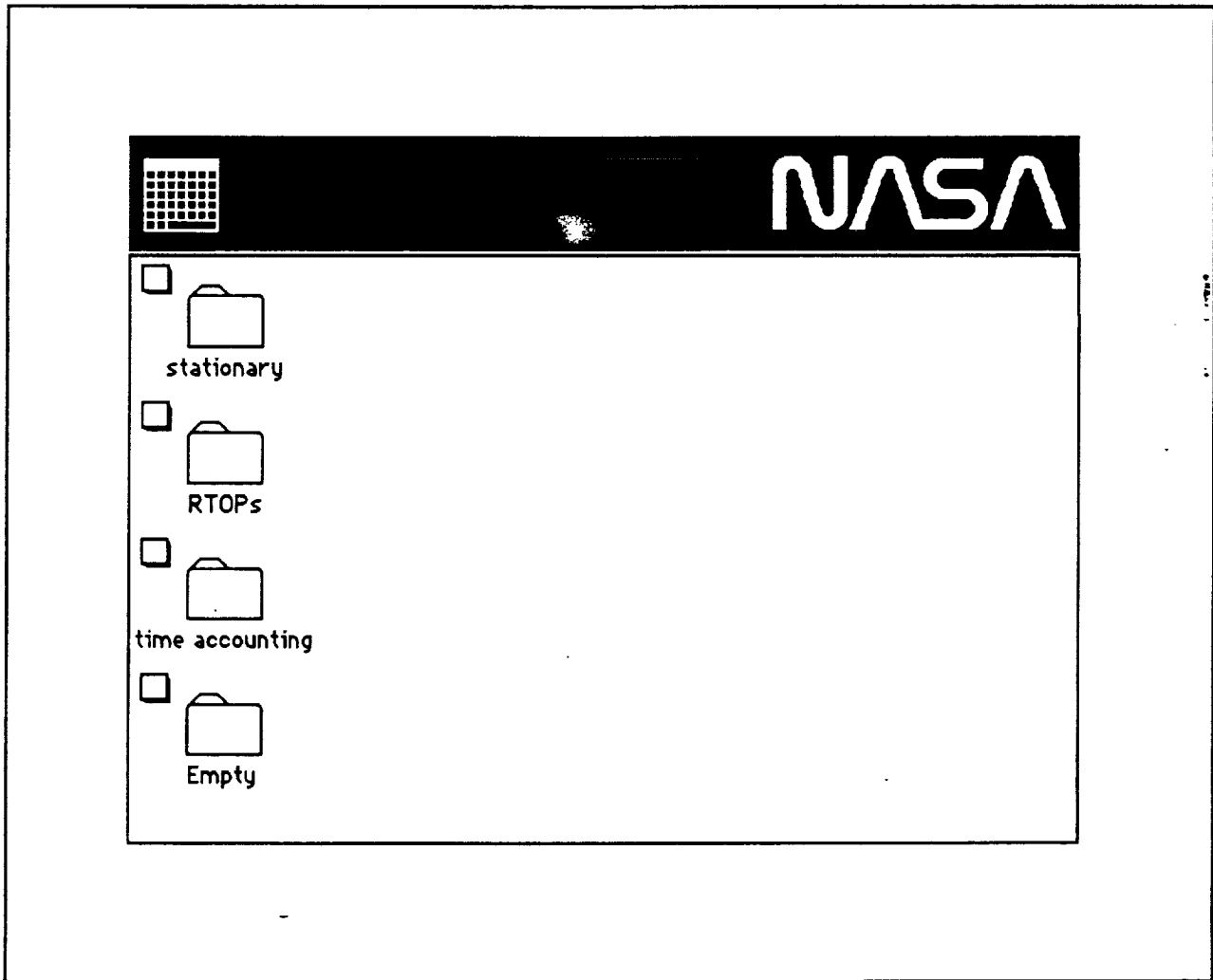
## 15.0 Applications

This function provided as a means to allow the user to have desktop-type access to applications without leaving IO. Click on the application button to go to a card that displays icons of the most commonly used applications. NOTE: You must initially install the application for its icon to appear on this screen. Click on the icon of the desired application to execute it and be transferred to it immediately. Choosing "Quit" from the application's "File" menu will return to the IO Calendar. To add application icons to the card, click on the "Empty" icon and select the application when prompted. To remove or change an application whose icon is on the card, click and hold down on the small square button to the upper left of the icon to be removed. Select "Remove" or "Change" from the pop-up list that appears. Select "Clear" revert the icon back to "Empty."



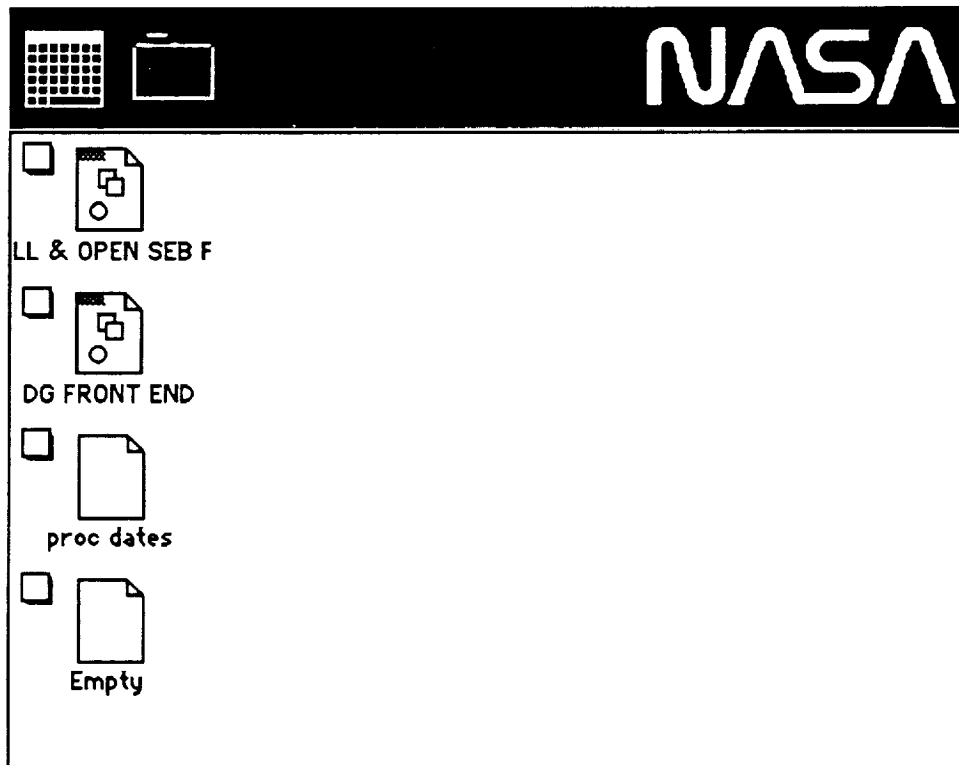
## **16.0 File Folders**

This function works in a similar fashion to the applications function described above, except that it is a means to access documents in a desktop-type environment. Click on the file cabinet button to go to a card that displays icons of the most commonly used folders. NOTE: You must initially install the folder for it to appear on this screen. Click on the icon of the desired folder to open it. This displays icons of the most commonly used documents.



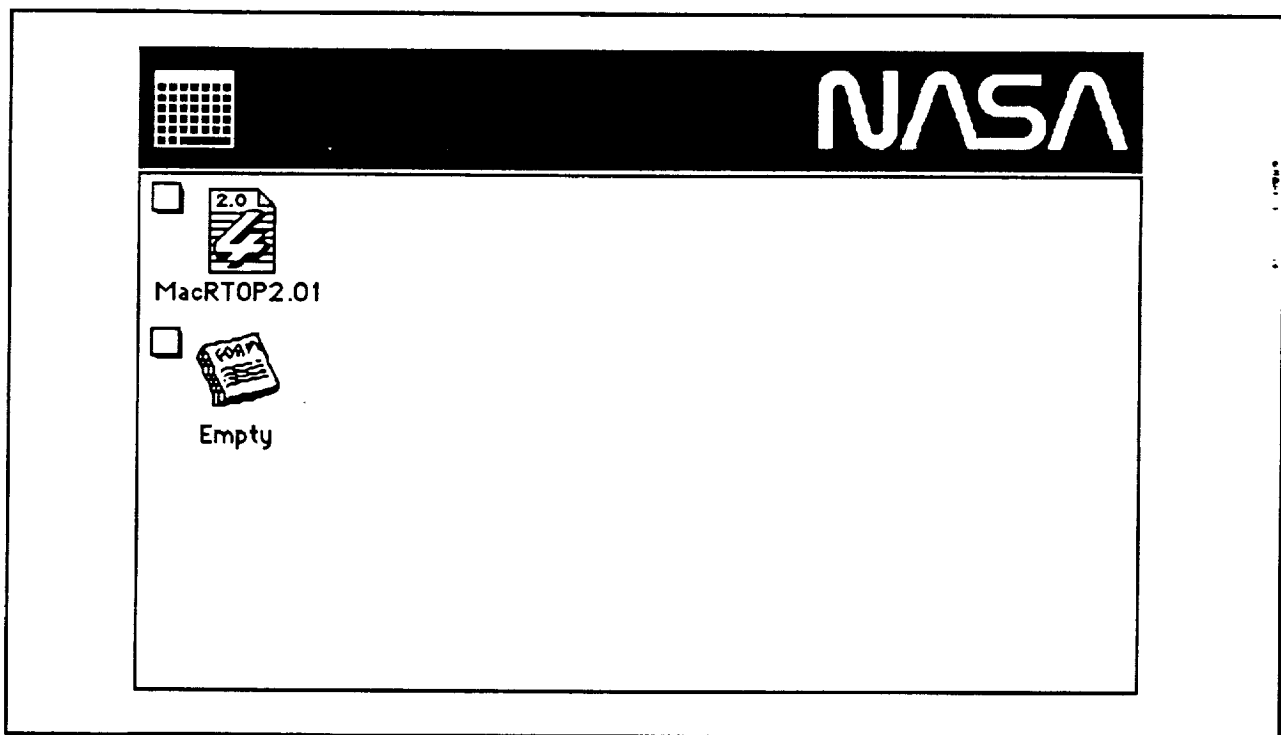
You must also install the documents for them to appear on this screen. Click on the icon of the desired document to open it. Choosing "Quit" from the application's "File" menu will return to the IO Calendar. To add document icons to the card, click on the "Empty" icon and select the application and document when prompted. To remove or change a document's icon from the card, click and hold

down on the small square button to the upper left of the icon to be removed. Select "Remove" or "Change" from the pop-up list that appears. To add folders to the folders card, click on the "Empty" folder icon and provide a name for it when prompted. An empty document selection screen will be displayed. To remove or change the name of a folder, click and hold down on the small square button to the upper left of the folder icon to be removed or renamed. Select "Remove" or "Change" from the pop-up list that appears. Select "Clear" revert the folder icon back to "Empty."



## 17.0 Forms

Click on the forms button to go to a card that displays icons of the most commonly used forms. NOTE: You must initially install the form for its icon to appear on this screen. Click on the icon of the desired form to open it. Choosing "Quit" from the application's "File" menu will return to the IO Calendar. To add form icons to the card, click on the "Empty" icon and select the application and document when prompted. To remove or change a form's icon from the card, click and hold down on the small square button to the upper left of the icon to be removed. Select "Remove" or "Change" from the pop-up list that appears. Select "Clear" revert the form icon back to "Empty."



## 18.0 Set-up

Click on the Set-up button to go to a series of cards from Apple's original HyperCard Home stack required for HyperCard operation. These cards mainly include the User Preferences card, which provides for the entry of the user's name into the system for milestone tracking, etc. This card also provides the capability to select the user level [of access] for all HyperCard functions. NOTE: IO Calendar requires a first and last name with a space between them, and the author suggests that the user level remain at 5, and all check boxes checked (activated).

## **19.0 Menus**

The HyperCard menus are for the development of HyperCard stacks and functions and are not to be used in conjunction with IO unless the user plans to alter the functionality of IO in which case SRS Technologies voids responsibilities.

## **20.0 Quitting**

When the user is ready to exit the calendar, the File menu contains a Quit HyperCard function (Command-Q) that can be selected to quit the program. Control will move to the Finder and the standard Macintosh desktop.

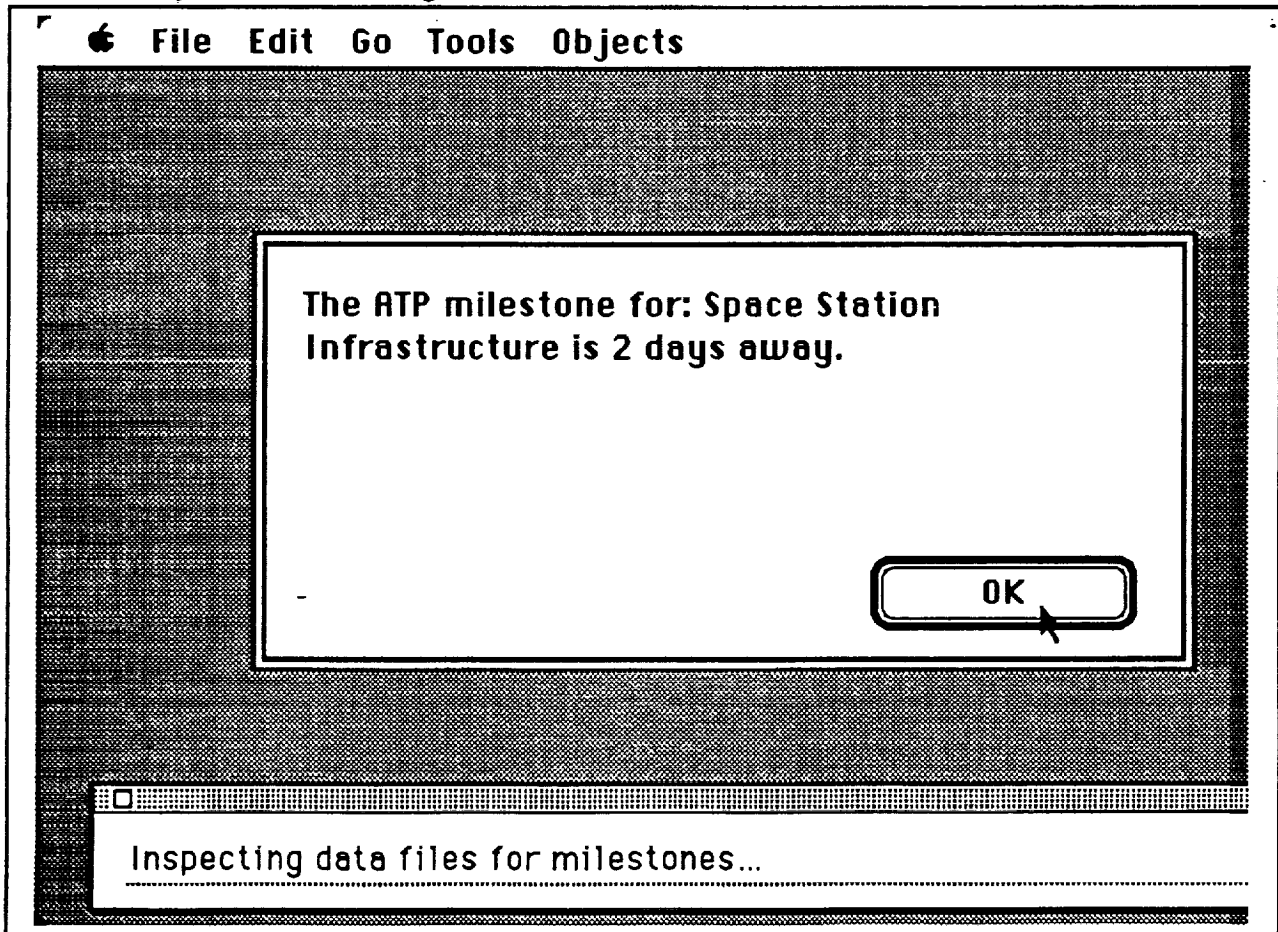
## CHAPTER IV.

### PROCUREMENT PLANNER

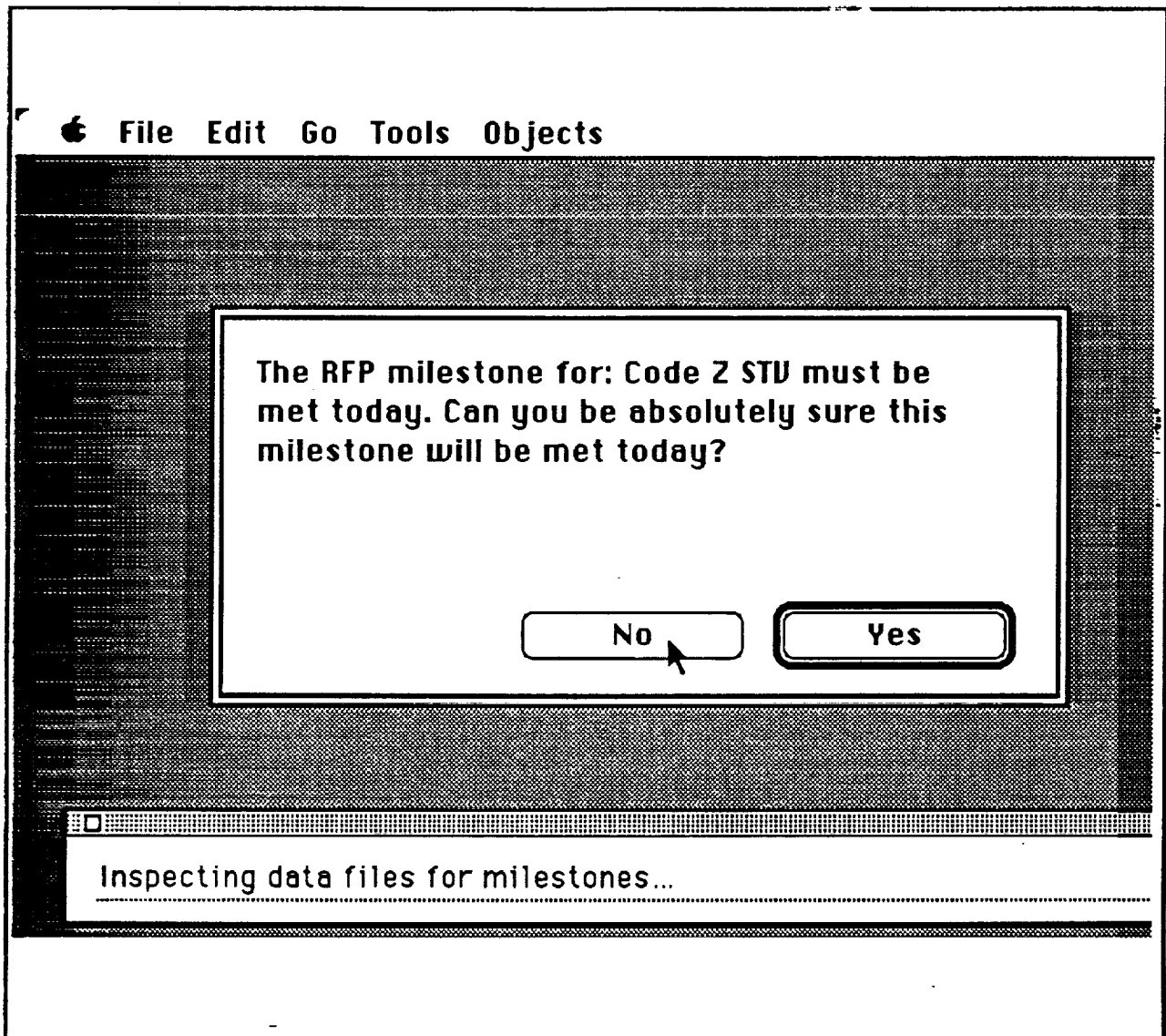
The Procurement Planner is a 4th Dimension written application to help executive managers schedule procurement deadlines through a milestone schedule. The database gives information pertaining to the procurement and dates for the four milestone which are associated with each procurement which are the Statement of Work(SOW), the Commitment, the Request for Proposal(RFP), and Authority to Proceed(ATP).

#### 1.0 Procurement Milestones Alert Dialog Box

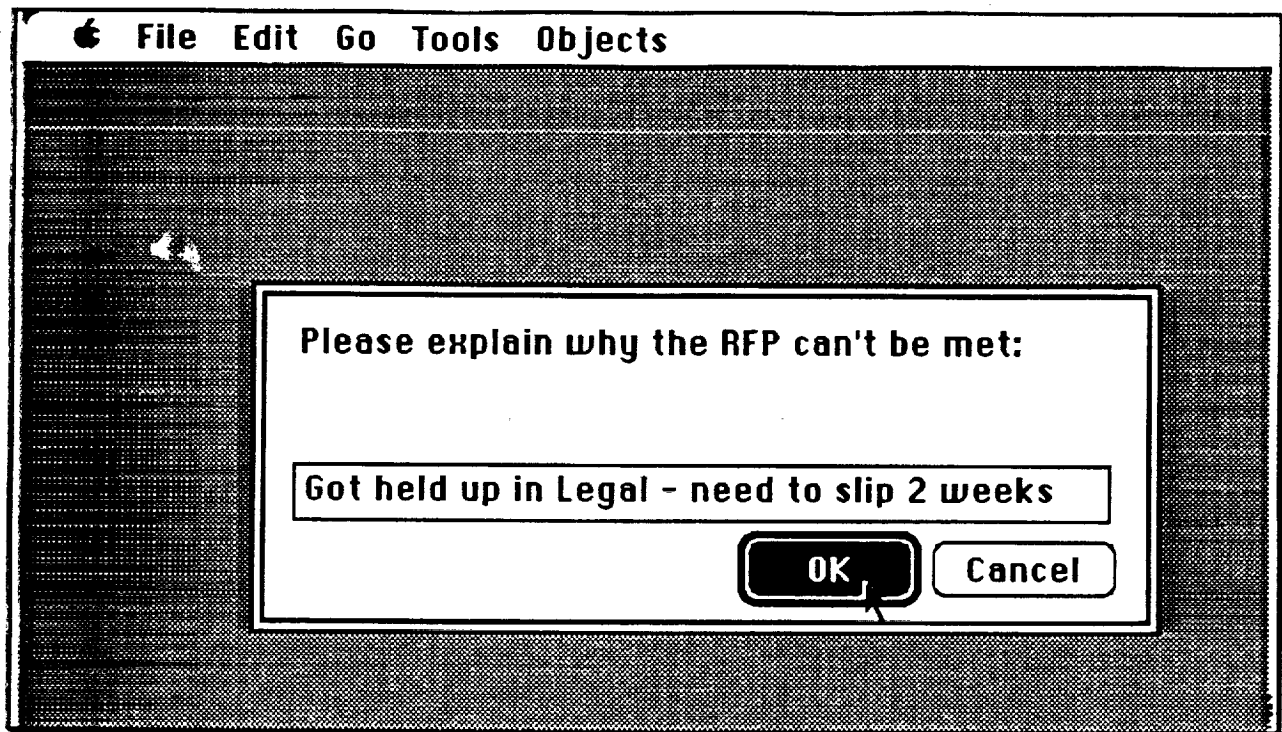
The Interactive Office maintains milestone reminder links between the Calendar and the procurement milestones entered in the Procurement Planner. At start-up, the user (identified by their user name in the "Set Up" screen) is notified of any milestones which need to be met during the next 10 (ten) days. An example of the two day reminder dialog is shown below.



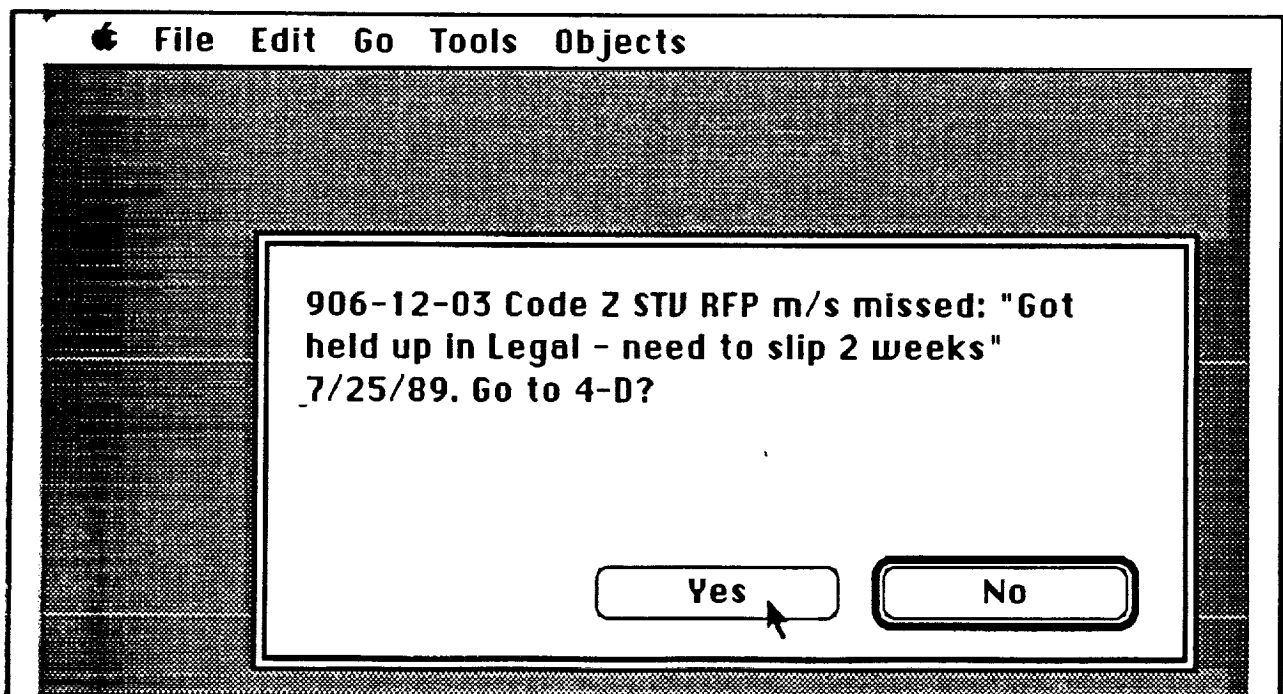
On the day that a milestone is "due", the user must affirm their ability to meet the milestone by clicking "Yes", or click "No" as shown in the example dialog below. If "yes", IO returns to the calendar screen and is ready for other IO operations.



If a "no" is entered, IO requests a short explanation for the slip from the user. It is recommended that the user provide a justification for the supervisor to slip the milestone(s) and by how much. This will provide the information needed by the department manager to enter Procurement Planner and update the schedule for that procurement. The dialog box shown below is a free form text entry field.



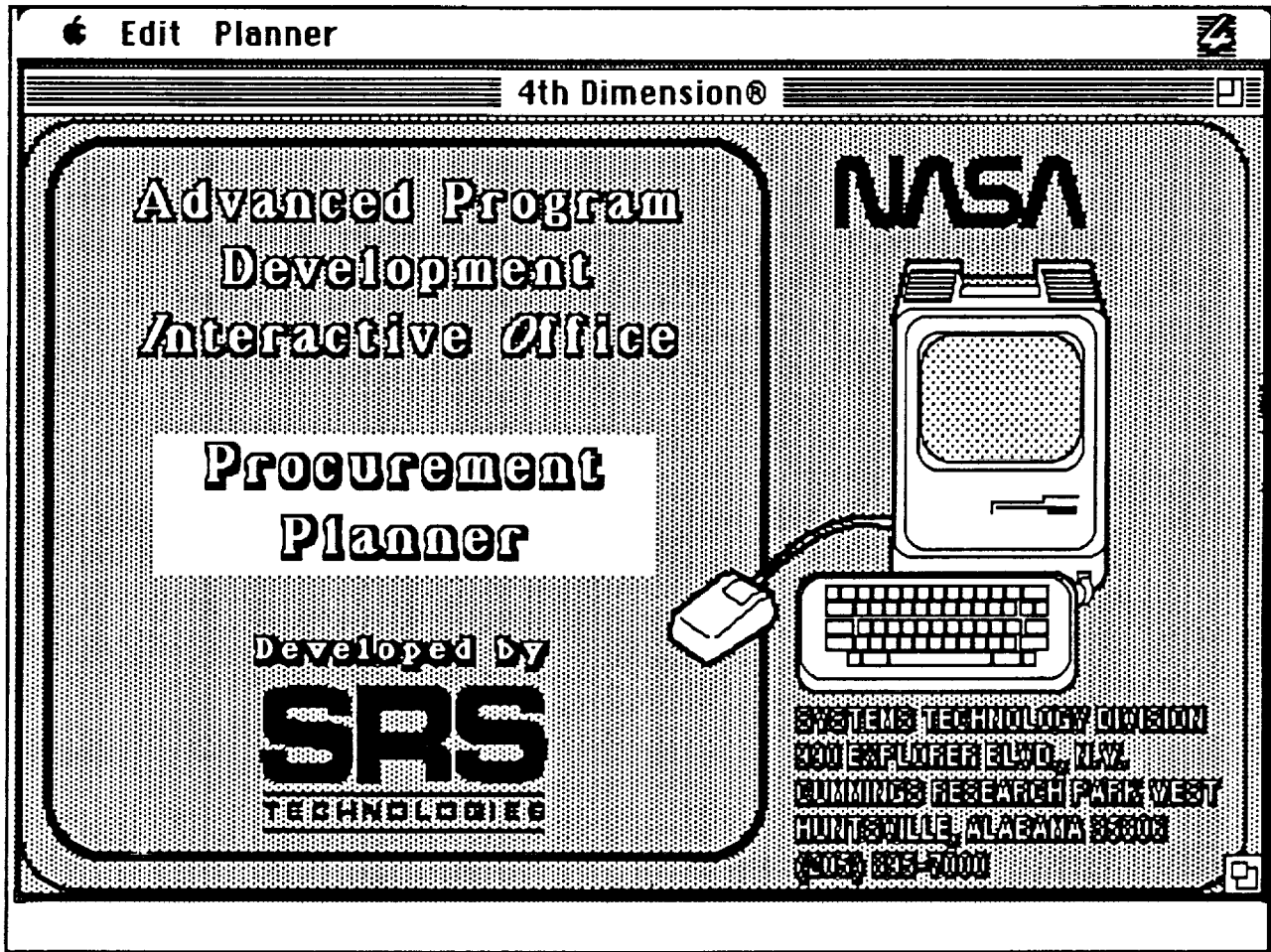
The department managers will automatically receive notification through a **dialog** relating the above information. The buttons in the box will make it possible to **launch** immediately into the Procurement Planner for rescheduling.





## 2.0 Accessing the Procurement Planner

When the users have been flagged of the necessity to change a procurement milestone the user can click on the Forms area which will provide the 4th Dimension icon to automatically launch the procurement planner software.



## 3.0 Procurement Planner Operations

Once the user has launched the procurement planner and obtained the IO screen and menu selection he is ready to run the application. The menus consist of an edit and a Planner menu. The Planner menu contains the Procurement selection which activates the Procurement planner schedule display.



A. *Add* - Click on this button to activate a new procurement record and display a blank entry form shown below. The RTOP number and description fields are entered by the user.

The screenshot shows a software window titled "4th Dimension®". Inside the window is a form titled "Program Development Procurement Input Form". The form contains several input fields with the following data entered:

RTOP Number	908-12-03
Project Leader	Gene Austin
Procurement Type	Full & Open Competition (SEC)
Group Code	PT01
Group Name	Space Trans. & Explor. Office
Sponsor	Code Z
Description	Code Z STV

Below these fields is a section with four rows of dates and a "Calculate" button:

ATP Date	7/3/90	Calculate
RFP Date	12/1/89	
COMMIT Date	7/25/89	
SOW Date	4/6/89	

At the bottom of the form are three buttons: "CANCEL", "Print", and "SAVE".

The following fields entries are made through selection choice boxes:

- 1). Project Leader
- 2). Procurement Type
- 3). Group Code
- 4). Sponsor

Apple Edit Planner

4th Dimension

### Program Development Project Input Form

RTOP Number	906-11-01
Project Leader	
Procurement Type	
Group Code	
Group Name	
Sponsor	
Description	

ATP Date	00/00/00	Calculate
RFP Date	00/00/00	
COMMIT Date	00/00/00	
SOW Date	00/00/00	

CANCEL Print SAVE

#### Choices for Project Leader

- Gene Austin
- Bob Durrett
- Uwe Hueter
- Fred Huffaker
- Gary Johnson
- Bob Nixon
- Pete Priest
- Don Saxton
- Phil Sumrall
- Lee Varnado
- Bruce Wiegmann

Cancel Modify

Apple Edit Planner

4th Dimension

### Program Development Project Input Form

RTOP Number	906-11-01
Project Leader	Gene Austin
Procurement Type	
Group Code	
Group Name	
Sponsor	
Description	

ATP Date	00/00/00	Calculate
RFP Date	00/00/00	

CANCEL Modify

#### Choices for Type

- Unsolicted Proposal Grants
- Contract Mod/Change Order
- Full & Open Competition (SEC)
- Sole Source Award
- Full & Open Competition (PH.B)

**Edit Planner**

4th Dimension

**Program Development Project Input Form**

RTOP Number	906-11-01
Project Leader	Gene Austin
Procurement Type	Sole Source Award
Group Code	
Group Name	
Sponsor	
Description	

ATP Date: 00/00/00    RFP Date: 00/00/00    **Calculate**    **Cancel**    **Modify**

**Choices for Group Code**

- PT01
- PT21
- PT31
- PT41

The Group Name is entered automatically according to the Group Code choice made.

**Edit Planner**

4th Dimension

**Program Development Project Input Form**

RTOP Number	906-11-01
Project Leader	Gene Austin
Procurement Type	Sole Source Award
Group Code	PT01
Group Name	Space Trans. & Explor. Office
Sponsor	
Description	

ATP Date: 00/00/00    RFP Date: 00/00/00    **Calculate**    **Cancel**    **Modify**

**Choices for Sponsor**

- Code C11
- Code CP
- Code ECT
- Code EED
- Code EN
- Code MC
- Code MD
- Code ME
- Code M1
- Code MK
- Code ML
- Code MS
- Code RS

The entry of the procurement dates can be made manually or can be calculated by entering one date and using it as a guideline to calculate the others. The calculation process is determined by the Procurement Type selected and the chart for the procurement month duration below.

ATP Date	12/1/89	Calculate	
RFP Date	9/22/89		
COMMIT Date	9/2/89		
SOW Date	8/3/89		
CANCEL		Print	SAVE

Save must be clicked in order for the record to be entered into the database of procurements. Each time the Save button is hit another blank entry form will be displayed, for the addition of a new procurement, until the cancel button is hit. The Cancel button will return the user to the schedule display and disregard the current addition. The print button will print the currently displayed procurement information as seen in this display form.

B. *Delete* - The delete button will delete a procurement(s) from the database and must be used with extreme care. The current selection the user sees on the screen is the selection the user is deleting. The search button must be used if the procurements being selected to delete are not the procurements the user desires to delete. For added security, the user is warned of the number of procurements selected to be deleted and provided a function to confirm the users deletion choices for each procurement the user is deleting. Selecting OK at each one of the alert boxes activates the deletion process - if Cancel is selected at any point during the confirmation process the entire deletion process is canceled. The user must reselect the set of procurements to delete and start the confirmation process again.

C. *Search* - The search function is used to select and view a certain set of related procurements. When search is selected a box containing searching criteria is displayed. The user must select what key he wants to search on, the condition in which to search, and the value to compare the condition with. The selections can be easily made through clicking on the entry in the box under the desired search criteria. The last box which specifies the comparison value must always be entered

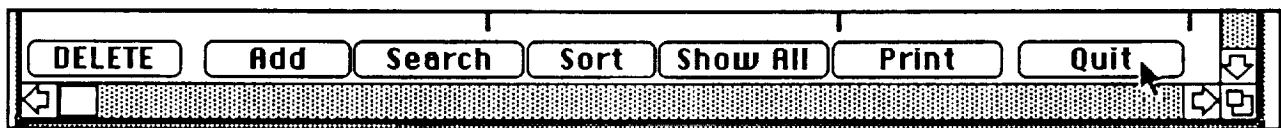
by hand unless a box is displayed for a choice selection. The OK button is selected when the criteria choices have been made. When the search is completed the schedule displayed will be activated and only the procurements which satisfied the search criteria will be displayed.

D. *Sort* - The sort button allows the user to sort the procurements in some logical order. When the sort button is selected a box with the list of fields which can be used as the sort key is displayed. Click on the desired field(s) to sort on and adjust the arrow according to ascending(up arrow) or descending(down arrow) order by clicking on the arrow to switch direction. Click on the Sort button to activate the sort or cancel to return to the schedule display. After the sort button is activated the schedule screen will be displayed with the current selected procurements sorted in the specified order.

E. *Show All* - The Show All button will make the current selection displayed contain all of the procurement records in the database. When partial selections of the database have been made through the search command the user might get lost in searches and what to re-display the entire database contents.

F. *Print* - The Print button will print the schedule as displayed on the screen. If a partial database is displayed that is what will be printed.

G. *Quit* - The Quit button will exit the user from the procurement planner schedule. By selecting Quit in the Planner menu the user can reenter the calendar function.



## CHAPTER V. QUICK REFERENCE

If you need help with your Macintosh in general:

Consult your Macintosh Owner's Manual or System Software User's Guide,  
or leave contact by E-mail to:

the author of Interactive Office, SRS Technologies;  
or, the site computer support services contractor.

If you need help with HyperCard in general:

Close this window and choose Help from the Go menu above, or type Command-?, to see the HyperCard Help stack(s) provided with HyperCard when it was purchased. If the Help stacks are not on one of the currently inserted/mounted disks, you can find them on the original floppies, or on the file server. Select Home under the Go menu from within the Help stack to return to the Calendar stack.

If you still need help, direct your questions via E-Mail to:

the author of Interactive Office, SRS Technologies;  
or, the site computer support services contractor.

Locating the IO Files on the file server:

If HyperCard says:

"Got error -120 while trying to find file 'IO Server:IO:Calendar'"  
then you should choose "Cancel", and return to the first card of the stack by  
either 1) pressing Command-1 or 2) Quit and restart HyperCard.



Then hold down the Option key while clicking the Continue button. The Open File box will appear, in which you should locate the ".IO" files. They are on the file server (disk) in the IO folder, and nested in the Calendar Folder. Select any file in the Calendar Folder and click "Open". The Calendar will resume processing correctly.

#### Milestone Reminder Feature:

The Interactive Office maintains milestone reminder links between the Calendar and the procurement milestones entered in the Procurement Planner.

At start-up, the user (identified by their user name in the "Set Up" screen) is notified of any milestones which need to be met during the next 10 (ten) days.

On the day that a milestone is "due", the user must affirm their ability to meet the milestone by clicking "Yes", or click "No" and enter a justification for the supervisor to slip the milestone(s) and by how much.

#### Selecting any day on the calendar/month:

Choose any date on the calendar of the currently displayed month to show the activities\* for that date. The time, person and a short description of all activities for the currently selected group are listed. Change groups by clicking the mouse on the name of the current group to reveal a pop-up menu. Holding the mouse button down, move the cursor to choose the desired group, and release the mouse button. The group at the top of the list is the office-wide "department summary" group. When an activity is entered, the user chooses whether an activity from another group will be "rolled up" into the activities listed for the "department summary".

\*Shows the personnel on leave or TDY for that date also

#### Selecting another month:

Click on the next or previous button to display the calendar for an adjacent month. The day of the month last selected will be active when the newly selected month is displayed (i.e., from the 6th of January, clicking next would show the activities for the 6th of February).

To display the calendar for a month that is not adjacent to the month currently displayed, you can either click next or previous, and cycle to the desired month, or click the Fast-Forward/Review button, and select the month and year desired. The day of the month last selected will be displayed when the newly selected month is displayed.

#### Activities listed with Flip Side:

To enter an activity, first display the day on which this activity will occur (if not currently displayed). Next, click on the "Activity" button and respond to the prompts.

A Flip Side is "additional information" for an activity. This detailed information could not be shown all at once along with the other information on the composite screen. Just click anywhere on the line of an activity, and the Flip Side will be displayed. Click OK to go back to the composite screen, or click Edit or Delete to perform either of these actions on the activity chosen (not just edit or delete the Flip Side).

#### On Leave listing:

To record a period of time for which a person will be "on leave," click on the "On Leave:" button and respond to the prompts.

To view information about when (date and time) a person goes out and comes back from leave, just click on the person's name. Click OK to go back to the daily summary, or click Edit or Delete to take either of these actions.

On TDY listing:

To record a period of time for which a person will be on TDY, click on the "On TDY:" button and respond to the prompts.

To view information about when (date and time), where (including POC phone numbers), and "with who?" a person will be on TDY, just click on the person's name. Click OK to go back to the daily summary, or click Edit or Delete to take either of these actions.